

**Abstract 280**

**TITLE:** Analysis of Cross-Sectional Surveys to Evaluate Community-Level HIV Prevention Intervention for Women

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**BACKGROUND/OBJECTIVES:** Community-level interventions are able to deliver HIV prevention messages to large numbers of persons at risk; however, the effectiveness of these programs is often difficult to assess. To illustrate a new analytical approach for evaluating community trials, data from cross-sectional surveys were used to assess results of the community-level Prevention of HIV in Women and Infants Demonstration Projects, funded by the CDC.

**METHODS:** The 2-year intervention, implemented in four inner-city communities in Pittsburgh (2), Philadelphia and Portland, consisted of small media role-model stories, community mobilization, and individually tailored messages delivered by outreach workers. Four annual cross-sectional surveys of women aged 15 through 34 were conducted in intervention and matched comparison communities before, during and after program implementation. We used a mixed model analysis of variance (ANOVA) to compare change over time in intervention and comparison communities in self-efficacy and perceived pros and cons of condom use with main partners and with other partners. A random coefficients model was used to allow for community differences in baseline measures and in patterns of change over time.

**RESULTS:** Scores on self-efficacy and perceived pros increased over time in both intervention and comparison communities, while perceived cons scores decreased over time. The pattern of change over time was consistent with our expectation of intervention effects, although we detected a significantly greater increase over time for the intervention communities only for perceived pros of condom use with other partners. The results remained the same after adjusting for differences in demographic characteristics between intervention and comparison communities using propensity scores.

**CONCLUSIONS:** Several factors may help explain why the effects of the intervention were not as strong as expected. Scores on our measures were relatively high at baseline. We found a secular trend of improvement in comparison communities, maybe partially due to contamination with project materials. Power to detect differences would have been enhanced with more community pairs and with a larger sample of women with other partners. We need further research on how community-level interventions affect attitudes related to condom use and how these attitudes are related to behavior change.

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